TRANSPARALLEL MEDIA AND TOMORROW'S LITERATURE

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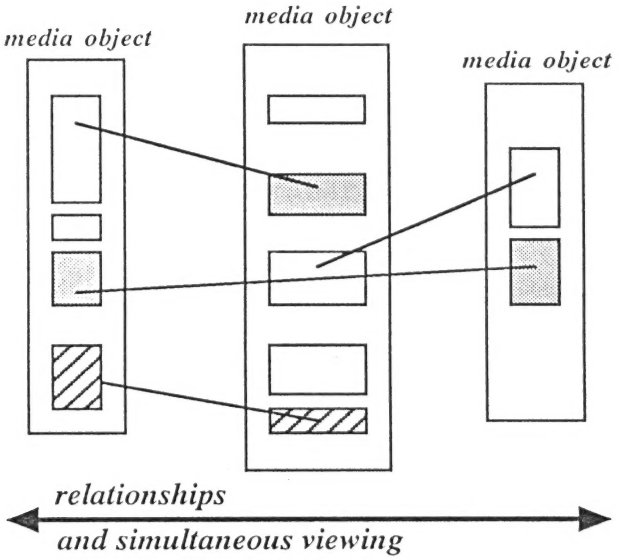
TRANSPARALLEL MEDIA

I have recently come up with the new term "transparallel" to distinguish the media I am discussing from other forms of hypertext and hypermedia. ("Parallel" for viewing side by side; "*trans-*" because there is a useful connection to be seen between them.)

By transparallel media I mean objects which can usefully be viewed side by side. These may be text, diagrams, video, movies, musical notation or any other form of data.

Transparallel Media:
Objects usefully seen together--
which have identities,
correspondences
and other relationships



The idea is to be able to see the relations among structures, wherever there is interconnection or correspondence; either because they are intrinsically connected side by side, or because there is some useful parallelism.

There may be many types of interconnection: shared material (transclusion), correspondence, similarity, hypertext linkage.

Many such media are possible, but they are an order of magnitude more compex than today's simple hypertext and hypermedia (such as HyperCard, MacroMind Director, World Wide Web), since they involve the interactive interconnection of a plurality of interactive systems.

Such media can range from coarse-grained media, such as zipper lists (1), to the extremely fine-grained media offered by the fine-grained hypermedia servers still under development at XOC, Inc., described in Literary Machines (2) and the XOC DOC (3).

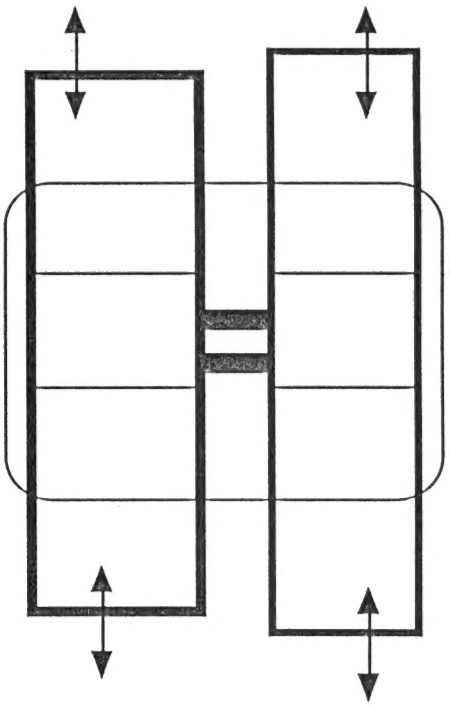
These fine-grained systems have always been intended to make possible a large-scale system of public-access transparallel media with unrestricted re-

use and republication (1), to which has been given the trade mark Xanadu®. This in turn rests on a copyright doctrine of pre-permission for unrestricted re-use if material is bought from the original publisher (4).

H-VIEWING

If transparallel objects are displayed side by side, we can enjoy what may be called "H-viewing," with the eye able to see the correspondence sideways between the two objects, and able to examine either object vertically, according to its sequence.

H-Viewing



THE SIMPLEST TRANSPARALLEL SYSTEM: ZIPPER LISTS

Zipper lists, or chunk transparallel media, are sets of chunks or paragraphs which may be viewed side by side.

Zipper lists may best be thought of as series of paragraphs sequentially ordered but also side-connected.

The zipper list structure was first published in 1965 (1), but was never implemented by itself, as effort by myself and my collaborators kept turning to richer and richer designs. This was tactically unfortunate. In our present effort at Sapporo HyperLab, we are implementing the original design so that the ideas will be fully understood.

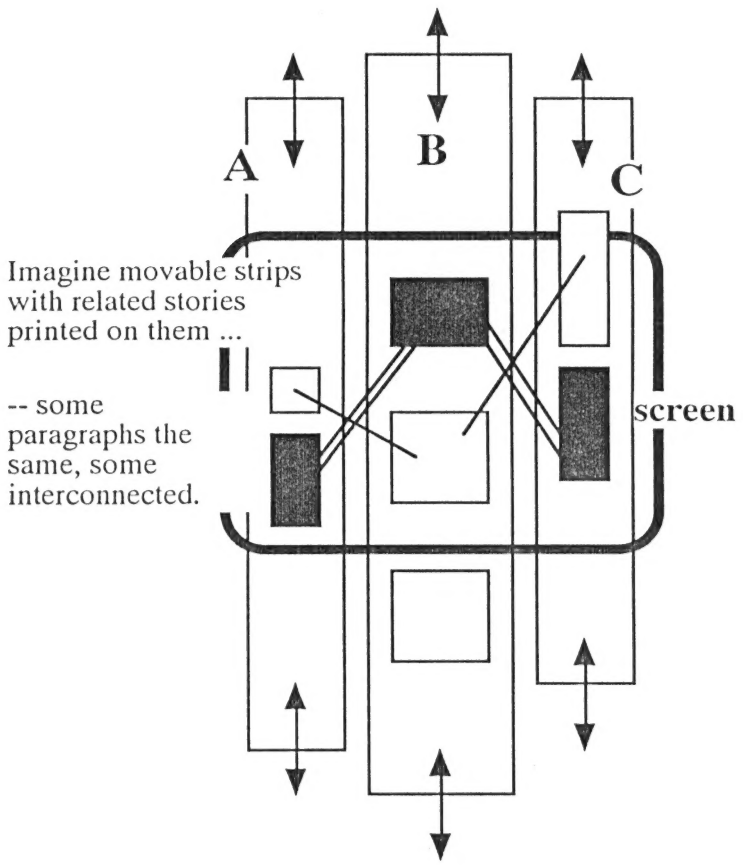
INTERFACE AND VISUALIZATION

We are fortunate to have Professor Tanaka's IntelligentPad system as a front-end mechanism for experimentation with possible interactive structures of zipper lists.

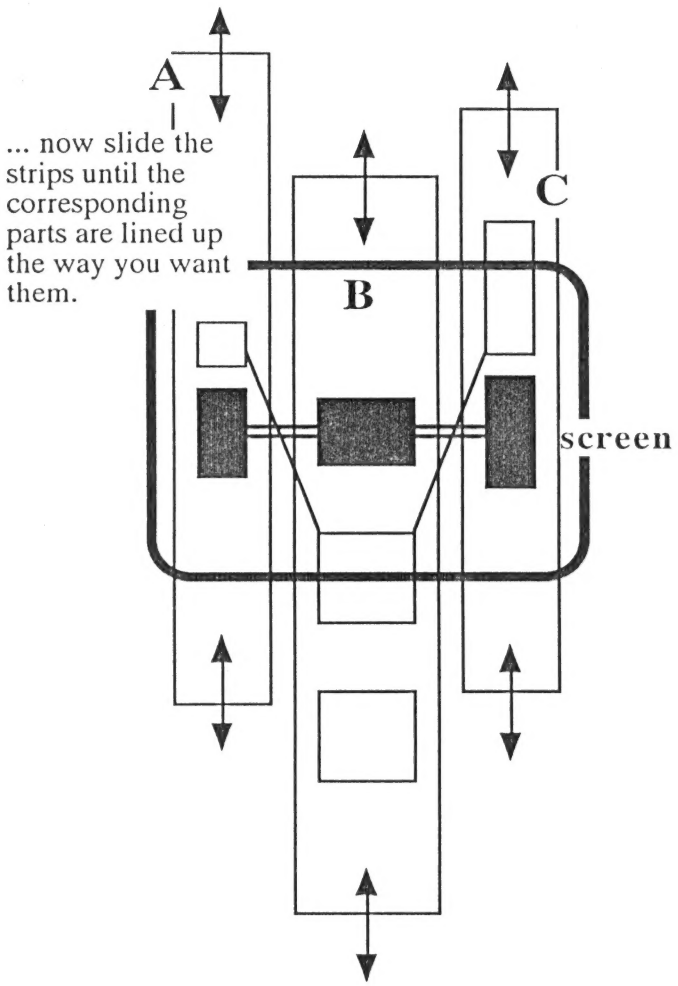
While no particular interface is specified for zipper lists, presumably the user may get both overview and closeup views.

Zipper lists are intended to let you line up the relevant parts of the material. Besides being able to see the interconnections in overview, the user may maneuver them into different views and magnifications, to study the interconnections and contexts close together.

Zip viewing is intended to allow you to see connected materials side by side. Since parts of zips may be connected side by side in ways that would be inconsistent in a paper world, the user gets to decide from moment to moment what parts to view together.



The user has a choice as to which connections to line up at any given moment; some possible viewing modes would allow many connections to be lined up simultaneously, with some loss of overview, or visual coherence of the individual zips.


A
... now slide the strips until the corresponding parts are lined up the way you want them.
B
C
screen

ZIPS AS FACILITIES AND MEDIA

Zipper lists may be used as facilities for everyday list management, or they may be used for the actual creation and use of transparallel hypertext-- as ***zip documents***-- the simplest transparallel media for the creation of works and presentations.

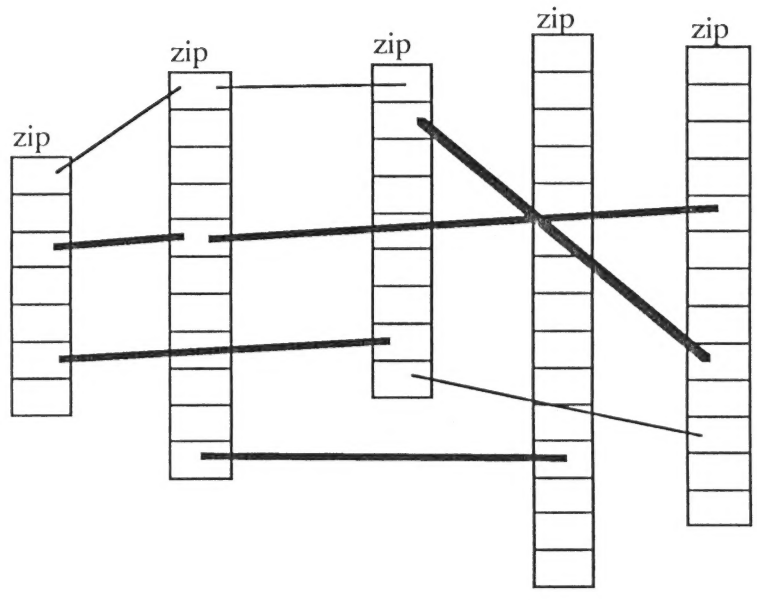
ZIP DOCUMENTS

A Zip Document consists of a group of connected zips (or zipplex) holding material on the same subject, or on connected subjects.

ZIP DOCUMENTS-- for making complex subjects, and their connections, understandable.

Connections and their contexts are simultaneously visible.

(Possible overview)



Heavy lines: same paragraphs (transclusions)

Light lines: other connections (links)

The zip document consists of a number of zips with shared or connected cells; each is a coherent sequential subset of the subject-- an article or story.

Material shared between zips (transcluded) can be read, and understood, in both zip contexts at once.

SAMPLE ZIP DOCUMENTS

At the HyperLab we are working on two examples of Zip Documents.

Mr. Elliot Porter of Berkeley has kindly lent us material from his extraordinary historical researches. The interconnections he has found among people and events in the early Twentieth Century are remarkable.

I am personally experimenting with a zip organization for writing my own autobiography. The different connected stories that make up a complex life are very hard to tell in one sequence, but should be much easier to make clear in transparallel structure.

While we are working today with modest examples, I believe that these structures represent the future of tomorrow's literature. Hypermedia without transparallel viewing and transclusion is seriously limited. For tomorrow's electronic literature I believe we will need strong transclusion, full transparallelism, unrestricted republication and transcopyright.